

PATENT**REMARKS**

Claims 1-20 are currently pending in this application. Independent claims 1 and 16-20 have been amended to address the issue raised in the "Response to Arguments" section of the Office Action. Claims 3, 4, 7 and 12 have been amended to maintain consistent terminology among the claims. No new matter has been added by these amendments. Applicants have carefully reviewed the Office Action and respectfully request reconsideration of the claims in view of the remarks presented below.

Claim Rejections Under 35 U.S.C. §102

Claims 1-4, 7, 13 and 15-20 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,381,493 (Stadler et al.).

Independent claims 1 and 16-20 relate to methods and systems for identifying cardiac ischemia that involve one or more of identifying, examining, comparing, and/or detecting segments or portions of electrical cardiac signals. The cardiac signals have a series of cycles, each of which includes a ventricular repolarization followed by a ventricular depolarization. The segments or portions of the cardiac signals that are identified, examined, compared and/or detected lie between two distinct and adjacent reference regions within a cardiac signal cycle, namely the region related to a ventricular repolarization and the region related to the first ventricular depolarization that follows the ventricular repolarization.

The system of Stadler et al. detects cardiac ischemia based on a segment (i.e., ST segment) of an electrical cardiac signal that lies between that portion of a cardiac signal cycle related to a ventricular depolarization (R-wave) and the first ventricular repolarization (T-wave) that follows the ventricular depolarization. See figure 5. In other words, the segment of Stadler et al. is subsequent to a ventricular depolarization (R-wave) and prior to the first ventricular repolarization (T-wave) after the

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depolarization.¹ This is not the same as Applicants' invention as claimed in independent claims 1 and 16-20, each of which recites a cardiac signal segment or portion subsequent to a ventricular repolarization and prior to the ventricular depolarization after the repolarization. In other words, Applicants look at TQ segments between adjacent "PQRST" cycles while Stadler et al. looks at ST segments within a single "PQRST" cycle.

In view of the foregoing, Applicants submit that Stadler et al. fails to teach the invention claimed in independent claims 1 and 16-20. Accordingly, Applicants request reconsideration of the §102 rejections of these claims and dependent claims 2-4, 7, 13 and 15.

Claim Rejections Under 35 U.S.C. §103

Claims 5 and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stadler et al. in view of U.S. Patent No. 5,560,368 (Berger). Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Stadler et al. in view of U.S. Patent No. 6,609,023 (Fischell). Claims 9 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stadler et al. in view of U.S. Application Publication 2003/0153956 (Park et al.). Claims 11 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stadler et al. in view of U.S. Application Publication 2003/0208129 (Beker et al.). Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Stadler et al. in view of U.S. Patent No. 6,272,379 (Fischell et al.).

In view of the foregoing analysis of independent claim 1 in view of Stadler et al., Applicants believe that the rejections under §103 are rendered moot as each of dependent claims 5, 6, 8-12 and 14 depends from allowable independent claim 1.

¹ It is noted that sample 1 shown in FIG. 5 of Stadler et al. appears to be after a ventricular repolarization (T-wave) and before the following ventricular depolarization (R-wave). Point 1, however, is merely an isoelectric reference sample – and is not a segment. Furthermore, point 1 by itself, cannot be used to detect cardiac ischemia. It must be used in conjunction with ST segment sample points 2, 3, 4 which are not within Applicants' claimed "segment" or "portion" of the cardiac signal cycle.

PATENT**CONCLUSION**

Applicants have made an earnest and bona fide effort to clarify the issues before the Examiner and to place this case in condition for allowance. Therefore, reconsideration and allowance of Applicants' claims 1-20 are believed to be in order.

Respectfully submitted,

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Date

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